In the Specification

Please delete the paragraph beginning on page 9, line 12, and replace it with the following paragraph:

Alternatively, if it is determined that the lateral edge does not intersect the ROI at two pinned points, then it is determined whether the first and second vertices reside in the same region of the mask matrix. In so doing, if the first and second vertices reside in the same region, then the process is repeated for all remaining vertices of the first single loop finite geometrical shape. If it is determined that the first and second vertices do not reside in the same region, then it must be determined whether the first and second vertices reside in adjacent regions of the mask matrix. If the first and second vertices do reside in adjacent regions of the mask matrix, then the process is repeated for all remaining vertices. However, if it is determined that the first and second vertices do not reside in adjacent regions of the mask matrix, then it must be determined whether the first and second vertices in fact do not reside in adjacent regions of the mask matrix. If this determination provides a result that the first and second vertices are not, not residing in adjacent regions of the mask matrix, then the process is stopped due to an error in the computation. If it is determined that the first and second vertices in fact do not reside in adjacent regions of the mask matrix, then the lateral edge joining such first and second vertices must reside outside the ROI. As such, an additional vertex is added to the boundary of the ROI to a ~~closes~~ closest corner of such ROI with respect to the lateral edge joining the first and second vertices.

Please delete the paragraph beginning on page 15, line 16, and replace it with the following paragraph:

Step 1070 – Both Pk & Pk+1 outside ROI? Are the vertices Pk and Pk+1 of original ~~the~~ polygon "P" both outside the ROI? If yes, go to step 1075. If no, go to step 1095.

Please delete the paragraph beginning on page 16, line 3, and replace it with the following paragraph:

Step 1090 – Ortho_pin Pk to nearest edge of ROI, Sj=intersection, j=j+1. Pk is in either region 2, 4, 6 or 8 of the matrix, therefore, pin Pk to the closest ROI boundary, in a direction perpendicular to the boundary edge ~~(see, fig. 5)~~(see, Fig. 5). Continue to step 2005.

Please delete the paragraph beginning on page 20, line 17, and replace it with the following paragraph:

Once all vertices of the calculated polygon "P" are pinned to the boundaries of and within ROI, the collapsed closed single loop polygon "S" 300 is formed. In so doing, the collapsed polygon may not preserve the number of vertices of the original polygon "P" 200, i.e., it does not maintain vertices P1 through P16. The new collapsed polygon "S" 300 may have a larger number of vertices " #' ", or alternatively a smaller number of vertices, in comparison to the number of vertices " P# " of the original large polygon "P" 200. That is, with respect to the above pseudo-code of the invention, the originally computed large single loop polygon "P" has vertices Pk, wherein k=1,2,3,....Nvertex, while the collapsed single loop polygon "S" has vertices Sk, wherein k=1,2,3,....

NvertexN'vertex, and wherein Pk and Sk may be identical or not identical. Referring to Figs. 4C-D, the collapsed polygon "S" 300 has more vertices than the original large polygon "P" 200. In particular, the vertex P8 of polygon "P" 200 is pinned to the ROI boundary at two different locations 8' and 8''. This is essential to ensure that the portion of Pk for convolution that lies inside the ROI remains unchanged.